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UTILITY PATENT APPLICATION TRANSMITTAL

31030790240 Attorney Docket No. Rui Sousa First Inventor Methods for Using Double-Mutant RNA Title

ER379230920US Express Mail Label No. (Only for new nonprovisional applications under 37 CFR 1.53(b)) Assistant Commissioner for Patents **APPLICATION ELEMENTS** ADDRESS TO: **Box Patent Application** See MPEP chapter 600 concerning utility patent application contents. Washington, DC 20231 Fee Transmittal Form (e.g., PTO/SB/17) CD-ROM or CD-R in duplicate, large table or (Submit an original and a duplicate fo Computer Program (Appendix) Applicant claims small entity status. 8. Nucleotide and/or Amino Acid Sequence Submission V See 37 CFR 1.27. (if applicable, all necessary) opecification [Total Pages (preferred arrangement set forth below) Computer Readable Form (CRF) ~ - Descriptive title of the invention b. Specification Sequence Listing on: - Cross Reference to Related Applications i. CD-ROM or CD-R (2 copies); or - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, paper or a computer program listing appendix Statements verifying identity of above copies - Background of the Invention - Brief Summary of the Invention **ACCOMPANYING APPLICATION PARTS** - Brief Description of the Drawings (if filed) Assignment Papers (cover sheet & document(s)) Detailed Description - Claim(s) Power of 37 CFR 3.73(b) Statement 10. - Abstract of the Disclosure (when there is an assignee) Attorney English Translation Document (if applicable) 11. Drawing(s) (35 U.S.C. 113) [Total Sheets 4. Copies of IDS Information Disclosure 12. 5. Oath or Declaration [Total Pages Citations Statement (IDS)/PTO-1449 13. **Preliminary Amendment** Newly executed (original or copy) Copy from a prior application (37 CFR 1.63 (d)) Return Receipt Postcard (MPEP 503) (for continuation/divisional with Box 18 completed) (Should be specifically itemized) Certified Copy of Priority Document(s) (if foreign priority is claimed) **DELETION OF INVENTOR(S)** 15. Signed statement attached deleting inventor(s) Nonpublication Request under 35 U.S.C. 122 named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: 404,726 Continuation Divisional Continuation-in-part (CIP) of prior application No.: Prior application information: Group Art Unit: Examiner For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Customer Number or Bar Code Label Correspondence address below (Insert Customer No. or Attach bar code label h Sara D. Vinarov Name Quarles & Brady LLP P O Box 2113 Address State Zip Code 53701-2113 WI City Madison US Telephone 608/251-5000 Fax 608/251-9166 Country Registration No. (Attorney/Agent) 48,524 Name (Print/Type) Sara D. Vinarov June 13, 2003 Date

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Signature

PTO/SB/17 (10-03) Approved for use through 07/31/2006. OMB 0651-0032
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known FEE TRANSMITTAL Application Number Filing Date for FY 2004 Rui Sosa First Named Inventor Effective 10/01/2003. Patent fees are subject to annual revision. **Examiner Name** Applicant claims small entity status. See 37 CFR 1.27 Art Unit (\$) 737.00 **TOTAL AMOUNT OF PAYMENT** 310307.90240 Attorney Docket No. FEE CALCULATION (continued) METHOD OF PAYMENT (check all that apply) 3. ADDITIONAL FEES Money Order Other None Large Entity , Small Entity Deposit Account: Fee **Fee Description** Deposit Code (\$) Code (\$) Fee Paid 17-0055 Account 2051 1051 130 65 Surcharge - late filing fee or oath Number Surcharge - late provisional filing fee or Deposit 2052 1052 50 Quarles & Brady LLP cover sheet Name 130 Non-English specification 1053 130 1053 The Director is authorized to: (check all that apply) 1812 2,520 For filing a request for ex parte reexamination 1812 2,520 920* Requesting publication of SIR prior to 1804 920 1804 < Charge any additional fee(s) or any underpayment of fee(s) Examiner action Charge fee(s) indicated below, except for the filing fee Requesting publication of SIR after 1805 1,840 1805 1.8401 Examiner action to the above-identified deposit account. 110 2251 55 Extension for reply within first month 1251 **FEE CALCULATION** 210 Extension for reply within second month 1252 420 2252 1. BASIC FILING FEE 1253 950 2253 475 Extension for reply within third month Large Entity Small Entity Fee Paid Fee Description Fee Fee Code (\$) 2254 1254 1,480 Extension for reply within fourth month 1 005 Extension for reply within fifth month 1255 2,010 2255 1001 770 2001 385 Utility filing fee 385 1401 330 2401 165 Notice of Appeal 1002 340 2002 170 Design filing fee 2402 165 Filing a brief in support of an appeal 1402 330 1003 530 2003 265 Plant filing fee 145 Request for oral hearing 1403 290 2403 1004 770 2004 385 Reissue filing fee 1451 1,510 1451 1,510 Petition to institute a public use proceeding 2005 ន្តក Provisional filing fee 1005 160 1452 110 2452 55 Petition to revive - unavoidable **SUBTOTAL (1)** (\$) 385.00 1453 1,330 2453 665 Petition to revive - unintentional 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE 1501 1.330 2501 665 Utility issue fee (or reissue) Extra Claims Fee Paid below 1502 480 2502 240 Design issue fee 180.00 **Total Claims** 120 -20* = 1503 640 2503 320 Plant issue fee Independent 7 Claims Multiple Dependent 172.00 x 43 -3** 1460 130 1460 130 Petitions to the Commissioner 1807 50 1807 50 Processing fee under 37 CFR 1.17(q) Large Entity | Small Entity 180 Submission of Information Disclosure Stmt 1806 180 1806 **Fee Description** 40 Recording each patent assignment per Code (\$) Code (\$) 40 8021 8021 property (times number of properties) 1202 2202 Claims in excess of 20 18 9 385 Filing a submission after final rejection 1809 770 2809 Independent claims in excess of 3 (37 CFR 1.129(a)) 1201 86 2201 43 1203 290 2203 Multiple dependent claim, if not paid 385 For each additional invention to be 145 770 2810 1810 examined (37 CFR 1.129(b)) ** Reissue independent claims 1204 86 2204 43 over original patent 1801 770 2801 Request for Continued Examination (RCE) Request for expedited examination of a design application 1802 900 1802 900 ** Reissue claims in excess of 20 1205 2205 9 18 and over original patent (\$) 352.00 Other fee (specify) SUBTOTAL (2) *Reduced by Basic Filing Fee Paid (\$) 0.00 SUBTOTAL (3) **or number previously paid, if greater; For Reissues, see above (Complete (if applicable)) SUBMITTED BY Registration No. 48.524 Telephone 608/251-5000 Name (Print/Type) Sara D. Vinarev Date October 20, 2003

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



One South Pinckney Street Post Office Box 2113 Madison, Wisconsin 53701-2113 Tel 608.251.5000 Fax 608.251.9166 www.quarles.com Attorneys at Law in: Phoenix and Tucson, Arizona Naples and Boca Raton, Florida Chicago, Illinois (Quarles & Brady LLC) Milwaukee and Madison, Wisconsin

October 20, 2003

Mail Stop Patent Application Commissioner for Patents P O Box 1450 Alexandria, VA 22313-1450

Re: Filing Patent Application

Dear Sir:

Enclosed for filing please find a patent application entitled:

METHODS FOR USING DOUBLE-MUTANT RNA POLYMERASES WITH REDUCED DISCRIMINATION BETWEEN NON-CANONICAL AND CANONICAL NUCLEOSIDE TRIPHOSPHATES

by Rui Sousa

The undersigned hereby certifies that this document is being deposited with the United States Postal Service today, October 20, 2003, by the "Express Mail" service, utilizing Express Mail label number ER 379230920US, addressed to: Mail Stop Patent Application, Commissioner for Patents, P O Box 1450, Arlington, VA 22313-1450.

Please indicate receipt of this application by returning the attached postcard with the official Patent and Trademark Office receipt and serial number stamped thereon.

Respectfully submitted,

Enclosures
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